



SEQUENCE LISTING

<10> Schmülling, Thomas
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<120> Method for modifying plant morphology, biochemistry and
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145 150 155 160
Leu His Leu Thr Val Gly Gly Thr Leu Ser Asn Ala Gly Ile Ser Gly
165 170 175
Gln Ala Phe Arg His Gly Pro Gln Ile Ser Asn Val His Gln Leu Glu
180 185 190
Ile Val Thr Gly Lys Gly Glu Ile Leu Asn Cys Thr Lys Arg Gln Asn
195 200 205
Ser Asp Leu Phe Asn Gly Val Leu Gly Gly Leu Gly Gln Phe Gly Ile
210 215 220
Ile Thr Arg Ala Arg Ile Ala Leu Glu Pro Ala Pro Thr Met Asp Gln
225 230 235 240

Glu	Gln	Leu	Ile	Ser	Ala	Gln	Gly	His	Lys	Phe	Asp	Tyr	Ile	Glu	Gly	245	250	255
Phe	Val	Ile	Ile	Asn	Arg	Thr	Gly	Leu	Leu	Asn	Ser	Trp	Arg	Leu	Ser	260	265	270
Phe	Thr	Ala	Glu	Glu	Pro	Leu	Glu	Ala	Ser	Gln	Phe	Lys	Phe	Asp	Gly	275	280	285
Arg	Thr	Leu	Tyr	Cys	Leu	Glu	Leu	Ala	Lys	Tyr	Leu	Lys	Gln	Asp	Asn	290	295	300
Lys	Asp	Val	Ile	Asn	Gln	Glu	Val	Lys	Glu	Thr	Leu	Ser	Glu	Leu	Ser	305	310	315
Tyr	Val	Thr	Ser	Thr	Leu	Phe	Thr	Thr	Glu	Val	Ala	Tyr	Glu	Ala	Phe	325	330	335
Leu	Asp	Arg	Val	His	Val	Ser	Glu	Val	Lys	Leu	Arg	Ser	Lys	Gly	Gln	340	345	350
Trp	Glu	Val	Pro	His	Pro	Trp	Leu	Asn	Leu	Leu	Val	Pro	Arg	Ser	Lys	355	360	365
Ile	Asn	Glu	Phe	Ala	Arg	Gly	Val	Phe	Gly	Asn	Ile	Leu	Thr	Asp	Thr	370	375	380
Ser	Asn	Gly	Pro	Val	Ile	Val	Tyr	Pro	Val	Asn	Lys	Ser	Lys	Trp	Asp	385	390	395
Asn	Gln	Thr	Ser	Ala	Val	Thr	Pro	Glu	Glu	Glu	Val	Phe	Tyr	Leu	Val	405	410	415
Ala	Ile	Leu	Thr	Ser	Ala	Ser	Pro	Gly	Ser	Ala	Gly	Lys	Asp	Gly	Val	420	425	430
Glu	Glu	Ile	Leu	Arg	Arg	Asn	Arg	Arg	Ile	Leu	Glu	Phe	Ser	Glu	Glu	435	440	445
Ala	Gly	Ile	Gly	Leu	Lys	Gln	Tyr	Leu	Pro	His	Tyr	Thr	Thr	Arg	Glu	450	455	460
Glu	Trp	Arg	Ser	His	Phe	Gly	Asp	Lys	Trp	Gly	Glu	Phe	Val	Arg	Arg	465	470	475
Lys	Ser	Arg	Tyr	Asp	Pro	Leu	Ala	Ile	Leu	Ala	Pro	Gly	His	Arg	Ile	485	490	495
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<210> 13

<211> 31

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:oligonucleotide
: primer or probe

<400> 13
cggtcgacat gggattgacc tcataccttac g 31

<210> 14
<211> 35
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:oligonucleotide
: primer or probe

<400> 14
gcgtcgactt atacagttct aggtttcggc agtat 35

<210> 15
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:oligonucleotide
: primer or probe

<400> 15
gcggtaccag agagagaaac ataaacaaat ggc 33

<210> 16
<211> 31
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:oligonucleotide
: primer or probe

<400> 16
gcggtaccca attttacttc caccaaaatg c 31

<210> 17
<211> 34
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:oligonucleotide
: primer or probe

<400> 17
gcggtacctt cattgataag aatcaagcta ttca 34

<210> 18
 <211> 31
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:oligonucleotide
 : primer or probe

 <400> 18

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<210> 19
 <211> 28
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:oligonucleotide
 : primer or probe

 <400> 19

 gcggtacccc cattaaccta cccgtttg 28

<210> 20
 <211> 32
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:oligonucleotide
 : primer or probe

 <400> 20

 gcggtaccag acgatgaacg tacttgtctg ta 32

<210> 21
 <211> 28
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:oligonucleotide
 : primer or probe

 <400> 21

 ggggtacctt gatgaatcgt gaaatgac 28

<210> 22
 <211> 31
 <212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:oligonucleotide
: primer or probe

<400> 22

ggggtaccct ttcctcttgg tttgtcctg t 31

<210> 23

<211> 32

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:oligonucleotide
: primer or probe

<400> 23

gctctagatc aggaaaagaa ccatgcttat ag 32

<210> 24

<211> 32

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:oligonucleotide
: primer or probe

<400> 24

gctctagatc atgagtatga gactgccttt tg 32

<210> 25

<211> 1728

<212> DNA

<213> Arabidopsis thaliana

<400> 25

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gttagtacct caaaagaatt accttcttca aatccttcag atattcggtc ctcattagtt 180
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 caaaggtagc attacgcac aatactgccc aaacctagaa ctgtataa 1728

<210> 26

<211> 1506

<212> DNA

<213> *Arabidopsis thaliana*

<400> 26

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 atcatctccg cagcctctca tgacttcgga aacataacca ccgtgacccc cggcggcgta 180

atctgcccct cctccaccgc tgatatctct cgtctcctcc aatacgccgc aaacggaaaa 240
 agtacattcc aagtagcggc tcgtggccaa ggccactcct taaacggcca agcctcggtc 300
 tccggcggag taatcgtcaa catgacgtgt atcactgacg tgggtggttc aaaagacaag 360
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 gaattgttct atggagtgtt aggaggtttg ggtcaatttg gaattataac gagagccaga 660
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 ctaatgcatt atactagtaa agaagattgg attgagcatt ttggatcaaa atgggatgat 1440
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 ttttga 1506

<210> 27
 <211> 1572
 <212> DNA
 <213> *Arabidopsis thaliana*

<400> 27
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 cacaacgaat tcgccggaaa actcacctcc tctcctcct ccgtcgaatc agccgccaca 180

gatttcggcc acgtcaccaa aatcttcctt tccgcgtct taatcccttc ctccgttgaa 240
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cgtgggtcacg gacacagcca ccgtggccaa gcctcggcta aagacggagt tgtgggtcaac 360
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gacgtggacg ctgcgtggct atggattgag gtgttgaata aaactttgga gttaggggta 480
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ggaattagtg gacaaacgtt tcggtacggc ccacagatca ctaatgttct agagatggat 600
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ttcgcggtgt taggagggtt ggggtcaattc ggcattataa caagagccag aattaaactt 720
gaagtagctc cgaaggggc caagtgggta aggtttctat acatagattt ctccgaattc 780
acaagagatc aagaacgagt gatatcgaac acggacggtg tagatttctt agaagggtcc 840
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gaaatactga agttttgtga ggatgcta atgggggtta tacaatatct tccttatcat 1440
tcatacacaag aaggatgggt tagacatttt ggtccgaggt ggaatatttt cgtagagaga 1500
aaatataaat atgatcccaa aatgatatta tcaccgggac aaaatatatt tcaaaaaata 1560
aactcgagtt ag 1572

<210> 28
<211> 1575
<212> DNA
<213> *Arabidopsis thaliana*
<400> 28

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ccaaccttaa tcaaatcaga tgagggcatt gatgttttct taccatatac actcaacctt 120

acgggtcctaa ccgatccctt ctccatctct gccgcttctc acgacttcgg taacataacc 180
 gacgaaaatc ccggcgccgt cctctgccct tctccacca cggaggtggc tcgtctcctc 240
 cgtttcgcta acggaggatt ctcttacaat aaaggctcaa ccagccccgc gtctactttc 300
 aaagtggctg ctcgaggcca aggcactcc ctccgtggcc aagcctctgc acccgaggt 360
 gtcgtcgtga acatgacgtg tctcgccatg gccgctaaac cagcggcggg tgttatctcg 420
 gcagacggga cttacgctga cgtggctgcc gggacgatgt gggtgatgt tctgaaggcg 480
 gcggtggata gaggcgtctc gccggttaca tggacggatt atttgtatct cagcgtcggc 540
 gggacgttgt cgaacgctgg aatcgggtgt cagacgttta gacacggccc tcagattagt 600
 aacgttcatg agcttgacgt tattaccgga aaagggtgaaa tgatgacttg ctctccaaag 660
 ttaaaccctg aattgttcta tggagtttta ggaggtttgg gtcaattcgg tattataacg 720
 agggccagga ttgcgttgga tcatgcaccc acaagggtga aatgggtctcg catactctac 780
 agtgacttct cggcttttaa aagagaccaa gagcgtttta tatcaatgac caatgatctc 840
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 gacatattta attaa 1575

<210> 29

<211> 1611

<212> DNA

<213> *Arabidopsis thaliana*

<400> 29

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accgtccacc cttccgactt agcctccgtc tctcagact tcggtatgct gaagtcacct 180
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 aacggacaag ccgcggcggg gaggaacggt gtggtggttg aaatgaacca cggcgtaacc 360
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 gattacttgt atctaaccgt tggaggtaca ctctccaatg caggaatcag tgggtcaagct 540
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 gctgagtttg atccgcgaca catactcgtc actggtcaga gaatctttca aaacccatct 1560
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<210> 30
 <211> 1515
 <212> DNA
 <213> *Arabidopsis thaliana*

<400> 30
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 tttgaacatg tccatcacgc ctccaaagat tttggaaatc gataccagtt gatccctttg 180
 gcggtcttac atcccaaatc ggtaagcgac atcgctcaa cgatacgaca catctggatg 240
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 caggctctaca gtgtggatto ccctgctcca tatgttgatg tgtctgggtg tgagctgtgg 420
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 catggaccac agatcagcaa tgttcatcaa ctggagattg tcacaggaaa aggcgagatc 600
 ctaaactgta caaagaggca gaacagcgac ttatttaatg gtgttcttgg tggtttaggt 660
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 aacctcctgg taccaagaag caaaatcaat gaatttgcaa gaggtgtatt tggaacata 1140
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 acgacaagag aagagtggag atcccatttc ggggacaagt ggggagaatt tgtgaggagg 1440
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<210> 31
 <211> 84
 <212> DNA
 <213> *Arabidopsis thaliana*

<400> 31
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tcggcgatga taccagagat cgat

84

<210> 32

<211> 28

<212> PRT

<213> Arabidopsis thaliana

<400> 32

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1 5 10 15

Asp Asn Arg Met Ser Ala Met Ile Pro Glu Ile Asp
20 25

<210> 33

<211> 2814

<212> DNA

<213> Arabidopsis thaliana

<400> 33

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ggccacttca cgtccaccc ttccgactta gcctcgtct cctcagactt cggtatgctg 180
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Glu Pro Leu Ala Val Leu His Pro Ser Ser Ala Glu Asp Val Ala Arg
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Arg Gly His Gly His Ser Ile Asn Gly Gln Ala Ala Ala Gly Arg Asn
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195 200 205

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Pro Gln Arg Val Arg Trp Ile Arg Val Leu Tyr Ser Ser Phe Lys Val
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<213> FAD binding domain motif

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